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AUTHOR Lathrop, Richard G.
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ABSTRACT

The Multidimensional Test of Self-Concept (MTS) is based on the assumption that an individual's perception of his/her well-being is related to the difference between the current state of that individual and the desired state. This difference between the two states may be directly measured, and a single self-concept score generated. The MTS provides a test which has direct clinical relevance (Sociability, Competence and Dependability) and which can be quickly administered (10-15 minutes) without special training. Previous work indicated the MTS had sufficient factorial validity, reliability and sensitivity to small differences to warrant further study. The second-year findings are based on a follow-up study using 329 residents of Chico, California, as subjects. Two separate analyses of variance were conducted, and tentative norms were estimated. Internal consistency, generalizability, and test-retest values were found to be within the high acceptable range. A confirmatory factor analysis was conducted, and one item was revised. These results indicate that various aspects of self-concept are not totally independent and that it is possible to talk about an overall high or low self-concept. The revised MTS instructions and scoring information are attached. (BAE)

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A MULTIDIMENSIONAL TEST OF SELF-CONCEPT: FURTHER FINDINGS

A paper presented to the Western Psychological Association
April 23, 1987 Long Beach, California

Richard G. Lathrop
California State University, Chico

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A MULTIDIMENSIONAL TEST OF SELF-CONCEPT:

FURTHER FINDINGS

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A personal note: The current paper completes most of the development work that I had in mind while contemplating this test. (Unfortunately, such work will never be totally completed!) Since the MTS does appear to have several psychometrically desirable qualities (reliability, sensitivity, and a known factor structure - among others), the task now becomes one of establishing validity. And this is an almost impossible task for one person.

Consequently, I'm asking for your help. I can think of at least a hundred studies that I'd like to run if I only had the time. To list a few:

1. Since the MTS was designed as an aid to clinicians, do individuals undergoing counseling show an improvement both in weak areas and in overall self-concept?

2. Can high-school drop-outs be predicted on the basis of MTS scores (particulary the S and C scales)? If so, what is the difference between those drop-outs low on S and those low on C?

3. The C "Like to Be" scale intuitively seems to be a measure of what the literature has called "Level of Aspiration". Do people with different scores on this scale behave in accordance with the Level of Aspiration literature?

4. What is the relationship between overall self-concept (MTS), academic self-concept (e.g., Shavelson), and academic performance?

5. What is the relationship between the MTS and other measures of Self-Concept or Self-Esteem?

6. Does the MTS successfully detect those high-school students who go on to college, given that IQ level is controlled?

7. Most of the focus of the MTS is on low scale scores. What are the characteristics of those people who score extremely high on one or more scales?

8. How well does another close individual (room-mate, spouse, etc.) estimate the answers on the MTS given by their co-respondent?

9.. . . . . 100. I could go on forever, it seems, but I think that my dilemna is clear: I can't possibly do all of the things that need to be done in a single lifetime. So I'm asking for your help.

I plan to schedule a symposium at WPA next year to present the findings of all those researchers who choose to join me in this task. Given enough time, not only significant but non-significant findings should be presented, since N.S. findings delimit the general applicability of the MTS. Should you choose to join me, please contact me (well prior to the early November deadline) at:

Prof. Richard G. Lathrop
Dept. of Psychology 234
California State University, Chico
Chico, CA 95929

And now on to the standard write-up . . . .

THE THEORY

The Multidimensional Test of Self-Concept (MTS) is based on the assumption that an individual's perception of his/her well-being is related to the discrepancy between the current state of that individual and the desired state. If the person is asked to evaluate their present state by questions like "As I really am" and their desired state by questions like "As I would like to be", the difference may be directly measured.

Leary (1957) used this concept in a two dimensional orthogonal measurement space so that a single self-concept score could be generated as the square of the distance between the two points defined by responses to the "Am" and "Like to be" questions. The two dimensions of this instrument were "Love - Hate" and "Dominance - Submission".

The MTS uses this same approach but attempts to provide a test in which the dimensions have some direct clinical relevance (Sociability, Competence, and Dependability. A further

consideration was that the test be very rapidly administered (no more than 10 - 15 minutes) and require neither specialized instructions nor the services of a trained test administrator.

PREVIOUS WORK

The 36 items from the Counselor Rating Form (Barak and LaCrosse, 1975) were administered to 150 students at all levels at California State University, Chico with a modified instruction set asking each student to first rate the items (e.g., Agreeable - Disagreeable, Analytic - Diffuse, etc.) "As you really are" and then "As you would like to be". Initial item screening reduced these 36 items to 18 - with 6 items per scale. An exploratory factor analysis indicated that this selection was potentially appropriate with only one item with dual loadings. Tentative factor names of Sociability, Competence, and Dependability were assigned on the basis of the common content of each factor.

Generalizability coefficients for each of the sub-scales were generated from ANOVA's with Subjects crossed with Items and yielded coefficients in the range from 0.759 to 0.813. Additional ANOVA's indicated lower values of S and C than D for the "Are" condition but few differences in the "Like" condition and higher C and lower S scores for graduate students than lower division students.

It was concluded that the MTS indicated sufficient factorial validity, reliability, and sensitivity to small real differences to warrant further investigation. The present paper presents findings based on the second year of research into the psychometric qualities of the MTS.

PRESENT FINDINGS

Sample Tested. For this follow-up study, a total of 329 individuals from the local Chico, CA area were tested on the revised test suggested in the previous findings. Approximately evenly divided between male and female respondents, the ages varied from 14 to 73 and occupations varied from junior high-school student to professional business person to college student to retired person. The sample appears to be reasonably representative of that to be expected in a college-dominated town in Northern California but certainly not representative of the entire U. S. population.

Initial Analyses. Two separate ANOVA's were conducted with individual nested in group but crossed with sub-scales. The first of these involved Sex as a nesting variable and no significant differences between Male and Female respondents were located on any scale. The second involved classification into Age Group based on approximately equal 1/3rds of the population being classified into each age group. The results indicated a slight (but significant) higher Dependability score for the oldest age group compared to the two lower age group.

Norms. Since few differences were shown in the initial analyses, it appeared possible to generate a set of tentative norms for this population across all individuals tested. Inspection of the data, however, revealed that the breakpoints for the "As You Would Like to Be" scales were so close that the required degree of stability could not be achieved. Consequently, only tentative norms for the "As You Really Are"

scales, the 3 Discrepancy scales, and Total Self-Concept were estimated in the current study. These norms were:

Scale	Extremely Low (1rst %tile)	Very Low (5th %tile)	Low (10th %tile)
Sociability	15	21	23
Competence	21	24	26
Dependability	21	27	31
S Discrepancy	21	16	12
C Discrepancy	20	15	13
D Discrepancy	21	14	10
Total S - C	932	434	325

Reliability. Reliability of the MTS was assessed in three different ways for the current data: Generalizability (G), Alpha, and Test - Retest. For the first of these, Subjects were the object of measurement and items within each scale were crossed with them (measurement was assumed to be relative rather than absolute). Separate analyses were conducted for each scale and resulted in the following G coefficients:

Scale	G
Sociability	0.863
Competence	0.781
Dependability	0.827

For internal consistency (Alpha), the results were:

Scale	Alpha
Sociability	Ø.843
Competence	Ø.728
Dependability	Ø.789

A variety of reasons created a considerable attrition in the number of people who had pre-test scores (all of the previous analyses) and those who had post-test scores 3 months later: some of the individuals who helped gather the original data were gone, some of the people originally tested had left the area, some individuals refused to take the second test, etc. As a result, only 212 individual's scores were available for test - retest analysis. For each sub-scale, these results were:

Sub-scale	"Are"	"Like"
Sociability	Ø.66Ø	Ø.74Ø
Competence	Ø.714	Ø.582
Dependability	Ø.688	Ø.695

Values for the 3 discrepancy scores and the overall total self-concept were:

	Score
S Discrepancy	Ø.436
C Discrepancy	Ø.543
D Discrepancy	Ø.583
Total Self-Concept	Ø.572

Factor Structure. A confirmatory factor analysis was conducted using LISREL V to analyze the structure proposed last year: items S1, S2, S3, S4, S5, and S6 loading on one factor, the C items loading on a different factor, and the D items loading on the third factor. The intercorrelation between factors was left free to vary in accordance with the theory that since all of these factors were measuring some aspect of overall self-concept, some common content should be present.

The results indicated an overall goodness-of-fit index of 0.80 and a chi-square/d.f. ratio of 2.52. Since this is a bit lower on goodness-of-fit than should really be desired (hypothetically at least 0.90), the data were searched for modifications that should be made. The standardized solution for the factor structure (lamda y) was:

Specified Item	Factor1	Factor 2	Factor 3
I1	0.788	0.553	0.830
I2	1.040	0.506	0.906
I3	0.866	0.606	0.558
I4	0.852	0.680	0.747
I5	0.907	0.603	0.606
I6	1.010	0.593	0.412

Since item D6 (genuine-phony) yielded the smallest standardized value (0.412), the normalized residuals were searched with this item specifically noted. Of the 153 residuals, 19 had values greater than /2.0/ and 11 of these were associated with the D factor. Five of these 11 significant residuals were due to item D6. Further, 7 of the high

modification indices in theta epsilon (above 5.0) were associated with this item. Accordingly, this item has now been revised to read "Faithful - Disloyal".

As expected, the factors were intercorrelated:

	Sociability	Competence	Dependability
Sociability	1.000	0.451	0.410
Competence	-	1.000	0.540
Dependability	-	-	1.000

As noted earlier, these results are taken to indicate that the various aspects of self-concept are not totally independent - implying that it is quite reasonable to talk about an overall high or low self-concept.

CONCLUSIONS

Overall, the results of the current year's testing are quite satisfying: tentative norms have been established, internal consistency, generalizability, and test-retest values are all within the high acceptable range, and the factor structue appears to be approximately correct. It now appears possible to proceed with validity studies with some assurance that the MTS has some very desirable psychometric qualities.

INSTRUCTIONS

On the following two pages are copies of the revised MTS. Please rate yourself on the first form as you feel that you really are and on the second form as you would really like to be.

Remember that your name appears nowhere on this form and thus your answers are completely confidential. Please take your time and respond as accurately and honestly as possible.

If you feel that you very closely resemble the word at one end of the scale, place a check mark as follows:

fair ____:____:____:____:____:____:__X__ unfair

OR

fair __X__:____:____:____:____:____:____ unfair

If you feel that you quite closely resemble the word at one end of the scale, place a check mark as follows:

rough ____:__X__:____:____:____:____:____ smooth

OR

rough ____:____:____:____:____:__X__:____ smooth

If you feel that you only slightly resemble the word at one end of the scale, place a check mark as follows:

active ____:____:__X__:____:____:____:____ passive

OR

active ____:____:____:____:__X__:____:____ passive

If both sides of the scale seem equally associated with you or if the scale is irrelevant, then place a check mark in the middle space:

hard ____:____:____:__X__:____:____:____ soft

MTS - As You Really Are

Please rate yourself on this form as you really are.
Remember that your name does not appear anywhere on this form.

depressed ____:____:____:____:____:____:____ cheerful

alert ____:____:____:____:____:____:____ unalert

undependable ____:____:____:____:____:____:____ dependable

close ____:____:____:____:____:____:____ distant

inexpert ____:____:____:____:____:____:____ expert

reliable ____:____:____:____:____:____:____ unreliable

incompatible ____:____:____:____:____:____:____ compatible

informed ____:____:____:____:____:____:____ ignorant

untruthful ____:____:____:____:____:____:____ truthful

enthusiastic ____:____:____:____:____:____:____ indifferent

insightless ____:____:____:____:____:____:____ insightful

responsible ____:____:____:____:____:____:____ irresponsible

unfriendly ____:____:____:____:____:____:____ friendly

intelligent ____:____:____:____:____:____:____ stupid

untrustworthy ____:____:____:____:____:____:____ trustworthy

sociable ____:____:____:____:____:____:____ unsociable

unskillful ____:____:____:____:____:____:____ skillful

faithful ____:____:____:____:____:____:____ disloyal

MTS - As You Would Like To Be

Please rate yourself on this form as you would like to be. Remember that your name does not appear anywhere on this form.

depressed ____:____:____:____:____:____:____ cheerful

alert ____:____:____:____:____:____:____ unalert

undependable ____:____:____:____:____:____:____ dependable

close ____:____:____:____:____:____:____ distant

inexpert ____:____:____:____:____:____:____ expert

reliable ____:____:____:____:____:____:____ unreliable

incompatible ____:____:____:____:____:____:____ compatible

informed ____:____:____:____:____:____:____ ignorant

untruthful ____:____:____:____:____:____:____ truthful

enthusiastic ____:____:____:____:____:____:____ indifferent

insightless ____:____:____:____:____:____:____ insightful

responsible ____:____:____:____:____:____:____ irresponsible

unfriendly ____:____:____:____:____:____:____ friendly

intelligent ____:____:____:____:____:____:____ stupid

untrustworthy ____:____:____:____:____:____:____ trustworthy

sociable ____:____:____:____:____:____:____ unsociable

unskillful ____:____:____:____:____:____:____ skillful

faithful ____:____:____:____:____:____:____ disloyal

MTS ITEM SCORING - AS YOU REALLY ARE

For the following items, a single line indicates direct scoring and a box indicates reversed scoring.

		S	C	D
1.	depressed - cheerful	_____	☐	
2.	alert - unalert			
3.	undependable - dependable	☐		_____
4.	close - distant			
5.	inexpert - expert		_____	☐
6.	reliable - unreliable			
7.	incompatible - compatible	_____	☐	
8.	informed - ignorant			
9.	untruthful - truthful	☐		_____
10.	enthusiastic - indifferent			
11.	insightless - insightful		_____	☐
12.	responsible - irresponsible			
13.	unfriendly - friendly	_____	☐	
14.	intelligent - stupid			
15.	untrustworthy - trustworthy	☐		_____
16.	sociable - unsociable			
17.	unskillful - skillful		_____	☐
18.	faithful - disloyal			

Sociability = S Total _____

Competence = C Total _____

Dependability = D Total _____

MTS ITEM SCORING - AS YOU WOULD LIKE TO BE

For the following items, a single line indicates direct scoring and a box indicates reversed scoring.

	S	C	D
1. depressed - cheerful	_____		
2. alert - unalert		☐	
3. undependable - dependable	☐		_____
4. close - distant			
5. inexpert - expert		_____	
6. reliable - unreliable			☐
7. incompatible - compatible	_____		
8. informed - ignorant		☐	
9. untruthful - truthful	☐		_____
10. enthusiastic - indifferent			
11. insightless - insightful		_____	
12. responsible - irresponsible			☐
13. unfriendly - friendly	_____		
14. intelligent - stupid		☐	
15. untrustworthy - trustworthy	☐		_____
16. sociable - unsociable			
17. unskillful - skillful		_____	
18. faithful - disloyal			☐

Sociability = S Total _____

Competence = C Total _____

Dependability = D Total _____

SCALE SCORES

	S	C	D
AS YOU REALLY ARE	_____	_____	_____
AS YOU WOULD LIKE TO BE	_____	_____	_____
DIFFERENCE	_____	_____	_____
SUB-SCALE SCORES = SQUARED DIFFERENCE	_____ (Soc.)	_____ (Comp.)	_____ (Dep.)

SELF-CONCEPT SCORE =
SUM OF SQUARED DIFFERENCES _____ (S-C)